

REMARKS

Applicant respectfully requests reconsideration and allowance of claims 13-30 that are pending and stand rejected in the above-identified patent application. Applicant has amended claims 13, 21, 23, and 29 herein. No new matter is introduced by the amendments. In view of the following discussion, Applicant submits that all pending claims are in condition for allowance.

Claim Rejection Under 35 U.S.C. §112, second paragraph:

At numbered parts 2-3 of the Office Action, the Examiner has rejected claims 13-20 and 23-30 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Specifically, the Examiner alleges that the term “large number” recited in independent claims 13, 23, and 29 is a relative term which renders the claims indefinite. Applicant has amended independent claims 13, 23, and 29 to recite “plurality” as suggested by the Examiner. As such, Applicant submits that the Examiner’s §112, second paragraph, rejections have been overcome, and respectfully requests that the Examiner’s §112, second paragraph, rejections be withdrawn.

Claim Rejections Under 35 U.S.C. §102/103:

At numbered parts 4-6 of the Office Action, the Examiner has rejected claims 13-14, 17-18, and 29 under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as obvious over Uema et al. (U.S. Pat. No. 6,471,088) (hereinafter referred to as “the ‘088 reference”). Applicant respectfully traverses the Examiner’s rejection.

Amended independent claims 13 and 29 recite, in part, a reading device which is provided in each of the base units and reads identification information assigned to the drug cassette; and a checking means which compares a result of reading with pre-stored check data, wherein a set of a microprocessor and a memory, or a microprocessor with a built-in memory is mounted in each of the base units, the checking means is built in each microprocessor in a distributed manner, the check data is built in the built-in memory in a distributed manner, and a determination as to whether the drug cassette is properly attached is made exclusively by the base unit.

Amended independent claim 29 further recites, in part, the base units are classified in a first group comprising a plurality of base units and a second group comprising a relatively smaller number of base units, and wherein the drug dispensing controller preparing the drug ejection instruction includes, in the drug ejection instruction addressed to the first group, a drug feeder storage address related to the drug feeder storage, and includes, in the drug ejection instruction

addressed to the second group, the check data.

The Examiner alleges that the '088 reference discloses a reading device (71) which is provided in each of the base units and reads identification information assigned to the drug cassette; a checking means (76) which compares a result of reading with pre-stored check data (see col. 7, lines 42-45), and a microprocessor (64) as claimed in the instant application. Applicant respectfully disagrees with the Examiner.

Applicant submits that the '088 reference does not disclose or suggest each and every element of amended independent claims 13 and 29 as presently claimed in the instant application. The '088 reference fails to anticipate or make obvious the present invention as presently claimed in independent claims 13 and 29 for a plurality of reasons. First, from col. 4, lines 8-24, the '088 reference discloses a substrate 64 of the '088 device, but the '088 reference lacks any teaching regarding the substrate 64 having a microprocessor or a checking means. Indeed, the substrate 64 of the '088 device is not provided with a microprocessor or a checking means as presently claimed in amended independent claims 13 and 29 of the instant application.

Second, from col. 3, lines 38-45, and col. 4, lines 8-24, numerals 17 and 71 of the '088 reference denote connectors, and not reading devices. Indeed, the '088 reference lacks reading devices as claimed in amended independent claims 13 and 29 of the instant application.

Third, from col. 7, lines 40-49, the '088 reference teaches that the memory 68 of the '088 device holds ID information, but the '088 reference lacks any teaching regarding the memory 68 holding check data compared therewith.

Fourth, the '088 reference lacks any teaching regarding each container 51 having the ability to each determine whether the container 51 is matched with the drive table 52 and/or a tablet case 3, 4, and is properly attached. In fact, the '088 reference teaches the opposite as the '088 reference discloses a controller 76 for distinguishing between the plurality of tablet cases 3, 4 in accordance with data. Because the controller 76 is tasked with controlling all of the tablet cases 3, 4, the control program as disclosed or suggested in the '088 reference is complex. Moreover, although the container 51 of the '088 reference is removable from the drive table 52 and/or the tablet case 3, 4, the '088 reference lacks any teaching regarding checking the container 51 and the drive table 52 and/or the tablet case 3, 4 for a match. Therefore, improper attachment of the container 51 to the drive table 52 and/or the tablet case 3, 4 may occur as taught by the '088 reference.

In contrast, as shown in at least FIGS. 1A-1H and as discussed in at least paragraphs [0149-0150] and [0180-0181] in the specification of the instant application as originally filed, there is no need for the controller 18 for controlling each of a large number of base units 30 of drug feeders 13 in accordance with prescription data to perform a checking process in at least one embodiment of the present invention as presently claimed in independent claims 13 and 29 of the instant application. From paragraph [0150], at least one embodiment of the present invention as claimed allows:

[each base unit 30 of each of the drug feeders 13 to check the identification information by using the result of reading by the reading device 31, [which] is connected to the microprocessor 40. A memory in the microprocessor 40 stores check data. The microprocessor 40 has a checking routine installed therein to check the result of reading by the reading device 31 against the check data (see Fig. 1H). (Emphasis added.)

Indeed, each base unit 30 performs its own checking process, which the '088 reference lacks, to make sure the drug cassette 20 is matched with the proper base unit 30. Moreover, the structure of at least one embodiment of the base units 30 is discussed in paragraphs [0180-0181] stating:

[f]urther, when the drug cassette 20 is reattached [to a base unit 30], the identification information is read from the identification information bearing member 21 by the reading device 31. The checking routine 47 compares the result of reading with the check data 51. If the result of comparison indicates matching failure, the ejection control routine 48 maintains an ejection disabled state in accordance with a notification from the checking routine 47. Accordingly, there is no fear that inappropriate drugs may be ejected for dispensing, even if a non-compatible drug cassette 20 is attached. (Emphasis added.)

Indeed, each base unit 30 makes a determination as to whether the associated drug cassette 20 is correctly matched and properly attached to the base unit 30. Thus, the instant application is directed to an invention which helps drug cassettes to be properly attached to or detached from the base unit by checking if the appropriate drug cassette is attached to the base unit. The check of data and of proper attachment is easier than would otherwise be the case, particularly when there are a large number of drug feeders 13. As such, the control program of the instant application is simplified whereas the control program of the '088 reference is complex as aforementioned.

Moreover, with respect to amended independent claim 29, the '088 reference does not disclose or suggest a controller classifying two groups while employing both check data of the identification information and the address data as presently claimed in the instant application. From col. 8, the '088 reference merely discloses that the address data may be used in place of the IDs. In contrast, amended independent claim 29 recites classifying the base units into two groups and

allowing the controller to use both the check data of the identification information and addresses so that safety and interchangeability based on drug cassette matching are achieved in a compatible manner as discussed in paragraphs [0448-0449] of the specification of the instant application as originally filed.

In view of the above, Applicant submits that amended independent claims 13 and 29 are, therefore, patentable. As claims 14 and 17-18 depend from amended independent claim 13, and recite additional patentable features, claims 14 and 17-18 are, therefore, likewise patentable.

At numbered part 7 of the Office Action, the Examiner has rejected claims 15-16, 19-28, and 30 under 35 U.S.C. § 103(a) as being unpatentable over the '088 reference in view of Yuyama et al. (U.S. Pat. No. 5,930,145) (hereinafter referred to as "the '145 reference"). Applicant respectfully traverses the Examiner's rejection.

Amended independent claims 21 and 23 recite, in part, a reading device which reads identification information assigned to the drug cassette; a set of a microprocessor and a memory, or a microprocessor with a built-in memory; and a manually-operated switch, wherein a checking means which compares check data stored in the memory with a result of reading by the reading device is built in the microprocessor, and wherein a check bypassing means which temporarily suspends checking function in accordance with the manipulation of the manually-operated switch is built in the microprocessor, and the checking means is built in each microprocessor of the base unit in a distributed manner, the check data is built in the built-in memory in a distributed manner, and a determination as to whether the drug cassette is properly attached is made exclusively by the base unit.

The Examiner concedes that the '088 reference does not disclose or suggest a check bypassing means which temporarily suspends checking function is built in the microprocessor.

The patentability of amended independent claim 13, from which claims 15-16 and 19-20 depend, over the '088 reference is discussed above. The remarks apply with equal weight to claims 15-16 and 19-20. The '145 reference fails to disclose or suggest the structure and the advantages of the claimed invention in the instant application. As such, the '145 reference does not cure the aforementioned deficiencies of the '088 reference, and the teachings of the '088 reference and the '145 reference, alone or in combination, do not result in the present invention as claimed in amended independent claim 13, from which claims 15-16 and 19-20 depend. As claims 15-16 and 19-20

depend from amended independent claim 13, and recite additional patentable features, claims 15-16 and 19-20 are, therefore, likewise patentable.

The patentability of amended independent claim 29, from which claim 30 depends, over the '088 reference is discussed above. The remarks apply with equal weight to claim 30. The '145 reference fails to disclose or suggest the structure and the advantages of the claimed invention in the instant application. As such, the '145 reference does not cure the aforementioned deficiencies of the '088 reference, and the teachings of the '088 reference and the '145 reference, alone or in combination, do not result in the present invention as claimed in amended independent claim 29, from which claim 30 depends. As claim 30 depends from amended independent claim 29, and recites additional patentable features, claim 30 is, therefore, likewise patentable.

With regard to amended independent claims 21 and 23, the teachings of the '088 reference and the '145 reference, alone or in combination, do not result in the present invention as claimed in the instant application for a plurality of reasons. First, from col. 4, lines 8-24, the '088 reference discloses a substrate 64 of the '088 device, but the '088 reference lacks any teaching regarding the substrate 64 having a microprocessor or a checking means. Indeed, the substrate 64 of the '088 device is not provided with a microprocessor or a checking means as presently claimed in amended independent claims 21 and 23 of the instant application. The '145 reference does not disclose or suggest a microprocessor, and, therefore, does not disclose or suggest a checking means built in each microprocessor as claimed.

Second, from col. 3, lines 38-45, and col. 4, lines 8-24, numerals 17 and 71 of the '088 reference denote connectors, and not reading devices. Indeed, the '088 reference lacks reading devices as claimed in amended independent claims 21 and 23 of the instant application. The '145 reference does not disclose or suggest reading devices for reading information, which is compared with stored check data, as claimed.

Third, from col. 7, lines 40-49, the '088 reference teaches that the memory 68 of the '088 device holds ID information, but the '088 reference lacks any teaching regarding the memory 68 holding check data compared therewith. From col. 6, lines 61-67, the '145 reference states that "an identification signal [is sent] as a response to the tablet name check signal or the cartridge presence check signal, and a stock quantity signal [is sent] as a response to the current stock quantity inquiry signal or the new stock quantity write signal." (Emphasis added.) Indeed, the '145 device sends an identification signal with the identification information in response to a signal inquiring as to what

the identification is if a tablet cartridge is present, and the '145 device sends a stock quantity signal in response to a signal either inquiring as to the current quantity or writing the current quantity. Indeed, the '145 device either updates information or reads information stored in the transponder 24. The '145 device does not read identification information assigned to a cartridge and then subsequently compare the read information with stored check data in memory. As such, the '145 reference does not disclose or suggest holding check data in memory, and comparing the check data with a reading from the reading device as claimed in the instant application.

Fourth, the '088 reference lacks any teaching regarding each container 51 having the ability to each determine whether the container 51 is matched with the drive table 52 and/or a tablet case 3, 4, and is properly attached. In fact, the '088 reference teaches the opposite as the '088 reference discloses a controller 76 for distinguishing between the plurality of tablet cases 3, 4 in accordance with data. Because the controller 76 is tasked with controlling all of the tablet cases 3, 4, the control program as disclosed or suggested in the '088 reference is complex. Moreover, although the container 51 of the '088 reference is removable from the drive table 52 and/or the tablet case 3, 4, the '088 reference lacks any teaching regarding checking the container 51 and the drive table 52 and/or the tablet case 3, 4 for a match. Therefore, improper attachment of the container 51 to the drive table 52 and/or the tablet case 3, 4 may occur as taught by the '088 reference. The '145 reference does not disclose or suggest having the ability to have each cartridge 15 check for a match and for proper attachment as claimed in the instant application.

Moreover, the teachings of the '088 reference and the '145 reference, alone or in combination, lack a check bypassing means for suspending checking function in accordance with a manually-operated switch as claimed in amended independent claims 21 and 23 of the instant application. As acknowledged above, the Examiner conceded that the '088 reference lacks a check bypassing means. The '145 reference does not disclose or suggest a check bypassing means for suspending checking functions, let alone a check bypassing means for suspending checking functions in accordance with a manually-operated switch.

In contrast, as discussed above in reference to at least FIGS. 1A-1H and as discussed in at least paragraphs [0149-0150] and [0180-0181] in the specification of the instant application as originally filed, there is no need for the controller 18 for controlling each of a large number of base units 30 of drug feeders 13 in accordance with prescription data to perform a checking process in at least one embodiment of the present invention as presently claimed in amended independent claims

13 and 29 of the instant application. The remarks apply with equal weight to amended independent claims 21 and 23. Indeed, each base unit 30 makes a determination as to whether the associated drug cassette 20 is correctly matched and properly attached to the base unit 30.

Moreover, as discussed in at least paragraphs [0372] and [0409-0413] in the specification of the instant application as originally filed, the trouble checking in a drug feeder 13 is facilitated in at least one embodiment of the present invention as presently claimed in amended independent claims 21 and 23 of the instant application. As discussed in paragraph [0371], when the priority is given to interchangeability, “in addition to the checking routine 447, the overwriting routine 447b is installed in the microprocessor 440 of the base unit 430 of the drug feeder 530 (see Fig. 14G).” However, as discussed in paragraph [0372], when the priority is given to safety, “the saving and restoring routine 447a for suspending the function of the checking means is installed in the microprocessor 440 of the base unit 430, in addition to the checking routine 447 (see Fig. 14F).” (Emphasis added.) The operation of the checking means suspension is further discussed in paragraph [0372] stating:

[w]hen the manually-operated switch 435 is operated, the saving and restoring routine 447a transfers current values of the check data 451 as the saved data 452 and then clears the check data 451 to zero. When the manually-operated switch 435 is operated a second time, the saving and restoring routine 447 overwrites the check data 451 with the values saved as the saved data 452. In association with this, the checking routine 447 does not perform a comparing process and a checking process while the check data 451 is cleared to zero.

Indeed, the check bypassing means works in accordance with the manually-operated switch to facilitate checking and suspension thereof, which the teachings of the ‘088 and the ‘145 references, alone or in combination, lack.

In view of the above, the ‘145 reference does not cure the aforementioned gross deficiencies of the ‘088 reference. As such, amended independent claims 21 and 23 are, therefore, patentable. As claims 22 and 24-28 depend from amended independent claims 21 and 23, respectively, claims 22 and 24-28 are, therefore, likewise patentable.

In view of the above, Applicant respectfully requests that the Examiner’s §102/103 rejections be withdrawn.

Conclusion

In view of the foregoing, Applicant submits that the instant claims are in condition for allowance. Early and favorable action is earnestly solicited. In the event there are any fees due and owing in connection with this matter, please charge same to our Deposit Account No. 11-0223.

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